



## Complete Summary

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### GUIDELINE TITLE

Infection control in physicians' offices.

### BIBLIOGRAPHIC SOURCE(S)

Infection control in physicians' offices. American Academy of Pediatrics. The American Occupational Safety and Health Administration (OSHA). Pediatrics 2000 Jun; 105(6):1361-9. [44 references]

## COMPLETE SUMMARY CONTENT

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METHODOLOGY - including Rating Scheme and Cost Analysis

### RECOMMENDATIONS

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT

### CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY

## SCOPE

### DISEASE/CONDITION(S)

Infectious diseases transmitted in the pediatric practice outpatient setting

### GUIDELINE CATEGORY

Prevention

### CLINICAL SPECIALTY

Family Practice  
Internal Medicine  
Pediatrics

### INTENDED USERS

Advanced Practice Nurses  
Allied Health Personnel  
Nurses

Physician Assistants  
Physicians

#### GUIDELINE OBJECTIVE(S)

To prevent transmission of infectious agents to patients and visitors, health care workers, and other employees in the office setting

#### TARGET POPULATION

Patients and visitors, health care personnel, and other employees who enter a pediatric outpatient office setting

#### INTERVENTIONS AND PRACTICES CONSIDERED

##### Health Care Delivery

1. Hand washing procedures (liquid soaps, antibacterial soaps)
2. Education of office staff concerning infection control and prevention
3. Communication with local and state health authorities regarding reportable diseases and suspected outbreaks
4. Minimizing the likelihood of liability to third parties

##### Standard Precautions

1. Appropriate use of gloves, masks, face shields, protective eyewear, and gowns
2. Cleaning of contaminated skin and environmental surfaces
3. Use of impermeable and puncture-proof needle disposal containers and policies for management of needlestick injuries
4. General health considerations of office staff, including policies for exclusion of staff members with contagious illnesses, tuberculosis screening (Mantoux test), and ensuring appropriate immunizations

##### Office Design

1. Sinks with soap dispensers and disposable towels available in convenient locations
2. Waiting areas that minimize transmission of infectious agents
3. Cleaning of examination rooms, equipment, and rest rooms
4. Use of air flow rates that minimize the transmission of air-borne infections
5. Minimizing contamination of personal and diagnostic equipment

##### Sterilization, Disinfection, and Antisepsis

1. Sterilization (autoclave, dry heat, gas) of equipment and instruments
2. High-level disinfection of instruments (boiling; chemical disinfection with glutaraldehyde, hydrogen peroxide, or sodium hypochlorite)
3. Intermediate-level disinfection of instruments (ethanol, isopropanol, iodine, iodophors, phenols, phenolics, and 1:64 dilutions of sodium hypochlorite)

4. Low-level disinfection (phenols, phenolics, quaternary ammonium compounds, 1:500 dilutions of sodium hypochlorite, iodine, and iodophors)
5. Skin and tissue antisepsis (alcohol, tincture of iodine)
6. Written sterilization and disinfection policies

#### General Housekeeping

1. Daily cleaning and disinfection of offices and office equipment

Disposal of medical waste according to federal, state, and local standards

Judicious use of antimicrobials

#### MAJOR OUTCOMES CONSIDERED

Prevention of contamination and disease

### METHODOLOGY

#### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

#### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

#### NUMBER OF SOURCE DOCUMENTS

Not stated

#### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

#### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

#### METHODS USED TO ANALYZE THE EVIDENCE

Review

#### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

#### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

#### RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

#### COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

#### METHOD OF GUIDELINE VALIDATION

Peer Review

#### DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

### RECOMMENDATIONS

#### MAJOR RECOMMENDATIONS

##### Guidelines for Health Care Delivery

##### Hand-Washing

Hand-washing is the single most important method to prevent transmission of infectious agents. Hands should be washed before and after each contact with patients, body fluids, and contaminated or soiled materials; between dirty and clean procedures on the same patient, after removing gloves; before and after performing invasive procedures; after using the rest room; and whenever hands are visibly soiled. Liquid soap in pump dispensers is ideal; the dispenser should be disposable or should be rinsed and washed before refilling to avoid contamination. Antibacterial soaps are not necessary for routine use. Soaps containing alcohol are drying and damaging to skin. Bar soaps are not recommended because bars frequently are wet and easily contaminated with potential pathogens. Use of sinks is preferred to waterless hand cleansers, especially if the hands are soiled. Paper towels are preferred for hand drying and always should be available and reached easily by the health care professional. Hand lotions should be available in pump-type containers that are replaced or cleaned at regular intervals. Hand lotions should not be petroleum-based as this may cause deterioration of latex material and thus reduce the effectiveness of gloves.

The method of hand-washing depends on the task to be performed. Routine hand-washing should be done by thoroughly covering the hands with soap and vigorously rubbing the hands under running water for at least 10 seconds. Washing with antimicrobial soaps, such as chlorhexidine or povidone-iodine, is recommended before performing invasive procedures. In these cases, nails are

cleaned with disposable manicure sticks and hands and wrists are included in a 1-minute scrub.

## Education

All employees at the time of orientation should receive and review information regarding infection control policies and procedures. Furthermore, regularly scheduled educational sessions for all staff are important to ensure that the level of hand-washing and infection control awareness remain high. Policies for infection control should be written, readily available, and enforced. All staff members should be aware of and motivated to follow these policies.

## Communication With Local and State Health Authorities

State and local health authorities determine which diseases should be reported. Office physicians must be aware of the rules and regulations in their municipality. Policies and procedures for communication with local and state health authorities regarding reportable diseases and suspected outbreaks should be established.

## Minimize the Likelihood of Liability to Third Parties

A number of third-party liability cases involve infectious diseases (i.e., cases alleging that the physician is liable for injury to parties that came in contact with his/her patient). Although some courts have discussed these cases, holding that there can be no liability absent the physician-patient relationship, other courts have held that the physician owes a duty to third parties if contact with the infected patient is "reasonably foreseeable." Therefore, physicians should be aware that the sphere of physician duty to third parties may be expanding and should take appropriate steps to minimize such risks (see Table 3 in the original guideline document).

## Standard Precautions

Standard precautions, as recommended for hospitalized patients (see Table 1 in the original guideline document), should be used in the care of every child because it cannot be determined which child harbors an infectious agent. Gloves should be available for use by all health care professionals. Gloves should be worn when contact with blood, body fluids, secretions, excretions, and items contaminated with these fluids is reasonably anticipated. Gloves do not need to be worn for routine well-child care, such as wiping a nose or changing a diaper. When gloves are used, hands should be washed after they are removed because contamination can occur during removal or from a break in the glove. Masks, face shields, and protective eyewear should be worn if splashing of body fluids is anticipated. When soiling of clothes with blood, body fluids, secretions, or excretions is highly likely, gowns can be worn. Water impermeable gowns are needed if splashes of blood or blood-containing body fluids might occur.

The U.S. Occupational Safety and Health Administration (OSHA) and U.S. National Institute for Occupational Safety and Health (NIOSH) guidelines require use of special masks — National Institute for Occupational Safety and Health-certified N-95 respirators — when caring for patients with contagious tuberculosis; use of

these masks requires education to ensure proper fit. Rarely is there a need for use of such masks in pediatric offices because most children with tuberculosis are not contagious. Final Occupational Safety and Health Administration rules on protecting health care workers from tuberculosis exposure are expected later this year. Adults suspected to be contagious for tuberculosis should not be permitted in the office because they pose a hazard to patients and staff.

Skin surfaces that are contaminated with blood or other body fluids should be washed immediately and thoroughly. Environmental surfaces should be cleaned with a detergent, then treated with freshly prepared bleach solution (diluted 1:64; 1/4 cup of bleach to 1 gallon of water, bleach contact time must be at least 30 seconds), with gloves worn during cleaning. Immunization with hepatitis B vaccine is mandated by Occupational Safety and Health Administration for all persons whose job might involve exposure to blood or blood-containing body fluids.

Impermeable and puncture-proof needle disposal containers, or sharps containers, should be available in areas where injections are given. The containers should not be overfilled and should be out of reach of young children. Policies consistent with state and local regulations for removal and incineration or sterilization should be in place. Policies for management of needlestick injuries should be readily available and understood by employees (for an example, see Table 4 in the original guideline document). The Occupational Safety and Health Administration requires that employees receive education on the management of sharps injuries, that procedures not only be available and understood, but followed. As of November 5, 1999, the Occupational Safety and Health Administration requires that all percutaneous sharps injuries be recorded on the Occupational Safety and Health Administration 200 log.

#### General Health Considerations of Office Staff

Individuals who work in health care are exposed frequently to persons with infectious diseases. Health care workers also pose a risk to patients and other personnel if they develop a communicable disease. Written policies, therefore, should exist regarding exclusion of staff members with contagious illnesses (see Table 5 in the original guideline document). Respiratory tract infections may not be a reason to exclude office personnel, but precautions should be taken with an emphasis on hand-washing before all patient contacts.

In adults, screening for tuberculosis using the Mantoux skin test should be done before employment to ensure active tuberculosis is detected early and treated. When necessary, employees should be excluded from the office until they are no longer infectious. A test is considered positive in a healthy health care professional if an area of induration of at least 10 mm is detected. For persons with underlying conditions or known household exposure to tuberculosis, 5 mm of induration is considered positive. If the Mantoux test is positive, the employee is referred for evaluation and appropriate management. The frequency of repeat skin testing for purified protein derivative (PPD)-negative employees should be based on the risk of exposure to people with active tuberculosis. Risk factors will vary from employee to employee; yearly testing should be considered in practices where there has been a high rate of documented tuberculosis or skin test conversion among families and patients or among health care professionals.

Consultation with local health departments is useful to determine the prevalence of tuberculosis in the local area.

Policies should be established regarding immunization of employees, volunteers, students, and residents (see Table 6 in the original guideline document). Immunization records should be maintained for all employees.

## Office Design

### Sinks

Properly functioning sinks with adjacent soap dispensers and disposable towels should be conveniently located in all patient care areas. Faucet aerators are discouraged because they are often contaminated by *Pseudomonas* species and other bacteria.

### Waiting Areas

Waiting rooms and reception areas offer the opportunity for child-to-child interaction, and, unfortunately, child-to-child transmission of infectious agents. Waiting rooms can be compared with child care settings, where contamination of the environment and transmission of infectious agents occur at an increased rate compared with the home setting. Efforts should be made to limit transmission of infectious agents by avoidance of crowding, shortening waiting times, and minimizing the sharing of toys. Infected children who are symptomatic should be segregated from well children as quickly as possible. There are no studies documenting the need for, or benefit of, separate waiting areas for well and ill children. Sick adults should be discouraged from spending time in waiting areas. Triage should begin at the time the office visit is scheduled. Parents of a contagious child should register with the receptionist immediately; in some cases, the child may be asked to use a separate entrance to avoid the waiting area. Ideally, immunocompromised children should not wait in the general waiting area but be escorted immediately to an examining room.

Toys in the office should be disposable or washable and of appropriate sizes and shapes to avoid aspiration or other injuries. Ideally, toys should be cleaned between use to avoid transfer of infectious agents. Toys contaminated with body fluids should be removed until cleaned. The value of antibacterial soaps for cleansing and antibacterial agents within the toys is unproven. These agents also add expense. Regular cleansing of toys in a dishwasher at the end of each day decreases microbial contamination and eliminates organic material on the toy.

Floors in the waiting area and office are often soiled with body secretions as well as dirt. These surfaces should be cleaned regularly. After spills involving blood or body fluids contaminated with blood, floors should be first cleaned with detergent, then disinfected promptly using a freshly prepared bleach solution (1/4 cup of bleach in 1 gallon of water, bleach contact time at least 30 seconds). Linoleum or wood floors are optimal surfaces to keep clean.

### Examination Rooms

Equipment should be cleaned after each use. Although furniture in the room generally is not a major concern for transfer of infectious agents, contamination of the examining table can be a problem. Covering the table with disposable paper or linen, which is changed between patients, decreases the risk for transmission of microbes. More thorough cleaning should be done if contamination is visible. Where diaper changing has occurred, more thorough cleaning should be done to remove visible soil. This is followed by sanitizing the surface using a freshly prepared solution of 1:64 household bleach (1/4 cup diluted in 1 gallon of water) applied for 2 minutes, rinsed, and dried.

## Rest Rooms

Rest rooms for staff and patient use should be provided and cleaned daily and whenever visibly soiled. A diaper changing area should be provided in at least 1 rest room with disposable paper and a receptacle for soiled diapers and paper.

## Air Flow

Certain infections, including varicella, measles, and tuberculosis, are transmitted by the air-borne route. Unfortunately, the number of air exchanges in buildings that house outpatient facilities often is low, and the air is frequently recirculated.

Physicians should be aware of air flow patterns to limit transmission of air-borne pathogens. Special arrangements are recommended for patients considered to be contagious including the following: 1) making efforts to see these patients at the end of the day; 2) quickly triaging these patients out of common waiting areas; and 3) closing the door of the examining room and limiting access to the patient by visitors and staff members who are not immune to the suspected disease. The duration of time that air-borne viruses remain in a room depends on air exchange rates; for example, in hospitals where air exchange rates are 6 to 8 per hour, several air exchanges occur within 30 minutes. Recommended air exchange rates depend on the stated use of a room. Recommendations and guidelines are made by the American Society of Heating, Refrigerating and Air Conditioning Engineers located in Atlanta, Georgia. The current recommended air exchange rate for a medical office examination room is 6 air changes per hour with 2 outside air exchanges per hour.

## Personal and Diagnostic Equipment

The role of stethoscopes and other examining devices in transmitting infectious agents is unclear; however, stethoscopes can be contaminated with multi-drug-resistant bacteria. A reasonable means of decreasing contamination is to wipe the bell and diaphragm of the stethoscope as well as the handle and body of otoscopes or ophthalmoscopes regularly and whenever they become soiled; a paper towel with soap and water or an alcohol wipe is effective. Ear curettes should be cleaned after each use and, if contaminated by blood, should be disinfected with a bleach solution or alcohol.

Ballpoint pens, patient charts, computer keyboards, and the mouse can be contaminated with infectious agents that can be transmitted by hands to other environmental sources. Because these items rarely are cleaned, hand-washing



before and after patient contact is necessary to minimize the potential transfer of bacteria and viruses from equipment to patients.

In most cases, blood pressure cuffs are placed on intact skin so the risk of transmission of infectious agents is minimal. These cuffs should not be placed in direct contact with damaged or nonintact skin.

Whenever economically and medically feasible, disposable supplies should be used. Plastic sleeves are available for use with glass thermometers. Any contaminated thermometer should be disinfected. Electronic thermometers have single-use shields, but care must be taken to avoid contaminating the housing of the thermometer. The "box" should be wiped whenever soiled and after measuring the temperature of an infected child; paper towels with soap and water or alcohol wipes can be used.

Care should be taken to avoid contamination of pulse oximetry and tympanometry equipment with any body secretions, and equipment should be cleaned carefully after each use. Pieces of other office equipment, such as electrocardiogram machines and Denver Developmental Testing kits (Denver Developmental Materials Incorporated, Denver, CO), should be cleaned whenever contaminated by patient secretions.

### Sterilization, Disinfection, and Antisepsis

Sterilization completely eliminates or destroys all forms of microbial life. Disinfection reduces, but does not eliminate, the microbial burden. The extent of disinfection depends on the type of disinfectant and its concentration, the resistance of the microbes, and the contact time. Cleaning removes foreign material from objects. Antisepsis refers to the process used to decontaminate the skin of the patient or health care professional.

All equipment should be cleaned regularly and stored where it will not become contaminated. Equipment having contact with mucous membranes requires high-level disinfection, whereas instruments that penetrate skin or mucosal membranes must be sterile (see Table 7 in guideline document).

Sterilization is accomplished by autoclave, dry heat, or gas. Items must be cleaned manually with soap and water to remove organic debris before autoclaving. Steam autoclaving uses distilled water that must reach a temperature of 121°C to 132°C. Recommended time for exposure of items is 20 minutes for unwrapped instruments and 30 minutes for small packs. Unwrapped instruments should be used immediately or aseptically transferred to a sterile container. Hot air oven sterilization is used only for items that cannot be sterilized by autoclaving. The oven temperature should be 170°C for an exposure time of 1 hour.

The sterilization equipment should be monitored by the use of various indicators to ensure that the process has been effective. Manual indicators ensure that a machine reaches the correct temperature and pressure. Chemical indicators are useful in showing that the wrapped package has been sterilized. Biological indicators are necessary to ensure sterility. A variety of indicator systems are

available. The procedure recommended by the manufacturer to document sterility should be done at least weekly and results should be recorded.

Packs that have been sterilized should be dated and stored in clean, dry areas to minimize recontamination. Muslin wrapped materials cannot be stored for more than a few months, whereas plastic wrapped packs can be stored safely for 1 year.

For this statement, the terms for disinfection are taken from standards for sterilization, disinfection, and antisepsis in hospitals. High-level disinfection is used for instruments having contact with mucous membranes. Two types of procedures may be used. 1) Boiling. Instruments are placed in boiling water for at least 20 minutes. The vessel used for boiling should be cleaned daily. 2) Chemical disinfection. Chemical disinfection is accomplished with glutaraldehyde, hydrogen peroxide, or sodium hypochlorite (bleach). Two percent glutaraldehyde solutions are most commonly used; however, these products have potential toxicity if proper ventilation is not ensured. The solution should be prepared according to manufacturer's instructions. A 6% solution of hydrogen peroxide is safe and effective to use with most medical instruments. A 1:64 dilution of sodium hypochlorite is effective for disinfection. The only disinfectant approved for use in hospitals is 2% glutaraldehyde. After disinfection, instruments are rinsed with sterile water, dried, and stored aseptically to avoid recontamination.

Intermediate-level disinfection is accomplished with ethanol and isopropanol, iodine and iodophors, phenols and phenolics, and 1:64 dilutions of sodium hypochlorite.

Low-level disinfection is appropriate for instruments that do not touch mucous membranes; examples include bedpans, blood pressure cuffs, crutches, and table tops. Low-level disinfectants include phenols and phenolics, quaternary ammonium compounds, 1:500 dilutions of sodium hypochlorite, and iodine and iodophors.

Written policies for sterilization and disinfection in the office will ensure that these procedures are performed properly, and regular reviews should be conducted to be sure that policies are being followed.

Antiseptics are chemical agents intended for use on skin or tissue. Skin preparation agents include isopropyl alcohol, chlorhexidine gluconate, iodine, and iodophors. Alcohol is the preferred skin preparation for immunizations and venipuncture for routine blood collection. Most skin preparation agents must be allowed to dry before surface bacteria are killed. Tincture of iodine is active on contact and thus could be considered the preferred skin preparation agent for invasive procedures, such as insertion of indwelling intravenous catheters and when obtaining blood for culture. Povidone iodine is an acceptable alternative. Contamination of antiseptics has been associated with outbreaks of infections and pseudoepidemics attributable to false-positive blood cultures. To prevent contamination, bottles of antiseptics should be dated, should not be refilled, and should be inspected and discarded if not used within 3 months. Alcohol pads and iodine products prepared for single use are available and eliminate the need for bottles of antiseptics.

## General Housekeeping

Offices and office equipment should be cleaned daily. Surfaces should be cleaned with a low-level disinfectant. Phenolics, iodophors, and quaternary ammonium compounds are appropriate for use in daily cleaning and disinfection of surfaces. Blood spills should be cleaned, using disposable gloves. The area should be disinfected with a freshly prepared solution of 1:10 household bleach applied for at least 30 seconds and wiped after the minimum contact time. Gloves should be worn during cleanup of any blood or body fluid.

## Disposal of Medical Wastes

The U.S. Occupational Safety and Health Administration standard as well as local and state regulations dictate the proper disposal of medical wastes, including dressings, needles, sharps, and body fluid samples. All physicians should be aware of the policies in their municipality and ensure that regulated wastes are disposed of appropriately. Basic principles include defining which items constitute infectious waste and which do not; appropriately separating, labeling, storing, and transporting items in these 2 categories; instructing staff on how to handle infectious wastes; and developing plans for managing waste, spills, and inadvertent exposures.

## Judicious Use of Antimicrobials

Another aspect of infection control is diagnosis of infection and institution of antibiotic therapy when indicated. Inappropriate use of antimicrobial agents in hospitals and in physician offices has contributed to the emergence of antibiotic-resistant organisms. The Centers for Disease Control and Prevention and the American Academy of Pediatrics have provided guidelines for the judicious use of antibiotics.

Guidelines have been published for isolation and precautions for hospitalized children and adults who acquire resistant flora. Patients may continue to harbor resistant bacteria as part of their respiratory or gastrointestinal tract flora. These organisms include methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin intermediate susceptible *Staphylococcus aureus* (glycopeptide intermediate *Staphylococcus aureus* or GISA), vancomycin-resistant *Enterococcus* species (VRE), and extended-spectrum beta-lactamase-producing or multiply-resistant Gram-negative bacteria. Hand-washing before and after contact with these colonized children is appropriate; no guidelines for management of these patients in office settings have been published.

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting each recommendation is not specifically stated.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Prevention of transmission of infections in the outpatient office setting

Subgroups Most Likely to Benefit:

Immunocompromised patients are at increased risk for contracting infection when exposed to infectious agents. Prompt triage of immunocompromised children should be performed routinely.

### POTENTIAL HARMS

Inappropriate use of antimicrobial agents in hospitals and in physician offices has contributed to the emergence of antibiotic-resistant organisms.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness  
Safety

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Infection control in physicians' offices. American Academy of Pediatrics. The American Occupational Safety and Health Administration (OSHA). Pediatrics 2000 Jun; 105(6):1361-9. [44 references]

#### ADAPTATION

Not applicable: The guideline was not adapted from another source.

#### DATE RELEASED

2000 Jun

#### GUIDELINE DEVELOPER(S)

American Academy of Pediatrics - Medical Specialty Society

#### SOURCE(S) OF FUNDING

American Academy of Pediatrics

#### GUIDELINE COMMITTEE

Committee on Infectious Diseases

Committee on Practice and Ambulatory Medicine

#### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Committee on Infectious Diseases, 1999-2000: Jon S. Abramson, MD, Chairperson; Carol J. Baker, MD; Margaret C. Fisher, MD; Michael A. Gerber, MD; Cody Meissner, MD; Dennis L. Murray, MD; Gary D. Overturf, MD; Charles G. Prober, MD; Margaret B. Rennels, MD; Thomas N. Saari, MD; Leonard B. Weiner, MD; Richard J. Whitley, MD.

Ex-officio Members: Georges Peter, MD; Larry K. Pickering, MD; Noni E. MacDonald, MD.

Liaisons: Anthony Hirsch, MD (Pediatric Practice Action Group); Richard F. Jacobs, MD (American Thoracic Society); Gilles Delage, MD (Canadian Paediatric Society); Scott F. Dowell, MD, MPH (Centers for Disease Control and Prevention); Walter A. Orenstein, MD (Centers for Disease Control and Prevention); Peter A. Patriarca, MD (Food and Drug Administration); Regina Rabinovich, MD (National Institutes of Health); Martin G. Myers, MD (National Vaccine Program Office).

Consultant: Edgar O. Ledbetter, MD

Staff: Joann Kim, MD

Committee on Practice and Ambulatory Medicine, 1999-2000: Jack T. Swanson, MD, Chairperson; Edward O. Cox, MD; Lane France, MD; Katherine C. Teets

Grimm, MD; Norman "Chip" Harbaugh, Jr, MD; James W. Herbert, MD; Allan S. Lieberthal, MD; Kyle E. Yasuda, MD.

Liaisons: Todd Davis, MD (Ambulatory Pediatric Association); Adrienne A. Bendel (Medical Group Management Association); Winston Price, MD (National Medical Association).

Section Liaisons: Philip Itkin, MD (Section on Administration and Practice Management); Susan Rogers, MD (Section on Residents).

Staff: Junelle Fletcher, BA

#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

#### GUIDELINE STATUS

This is the current release of the guideline.

AAP Policies are reviewed every 3 years by the authoring body, at which time a recommendation is made that the policy be retired, revised, or reaffirmed without change. Until the Board of Directors approves a revision or reaffirmation, or retires a statement, the current policy remains in effect.

#### GUIDELINE AVAILABILITY

Electronic copies: Available from the [American Academy of Pediatrics \(AAP\) Policy Web site](#).

Print copies: Available from American Academy of Pediatrics, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

#### AVAILABILITY OF COMPANION DOCUMENTS

None available

#### PATIENT RESOURCES

None available

#### NGC STATUS

This summary was completed by ECRI on September 17, 2001. The information was verified by the guideline developer as of December 5, 2001.

#### COPYRIGHT STATEMENT

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The logo for FIRSTGOV, with "FIRST" in blue and "GOV" in red, and a small red star above the "I".

